3625 Del Amo Boulevard, Suite 180 Torrance, California 90503-1643 (310) 370-8370 (310) 370-7026 FAX www.hygienetech.com

September 18, 2014

California State Board of Equalization 450 N Street Sacramento, California 94279

Document No. 21408001.1

Attention: David Gau

Regarding: Limited Fungal Growth Exposure Assessment Surveys

August 2014 Random Sampling

Dear Mr. Gau:

On August 4, 19, 25, and 29, 2014, industrial hygienists with Hygiene Technologies International, Inc. (HygieneTech) conducted limited fungal growth exposure assessment surveys involving 22 randomly selected areas located within the California State Board of Equalization (BOE) building. The findings of the surveys, along with the analytical data, conclusions, and recommendations when applicable, appear below.

On the survey dates, air samples were collected for total (viable and nonviable) fungi analyses using a Zefon brand Bio-Pump  $Plus^{\mathsf{T}}$  equipped with Air-O-Cell cassettes. All such samples were subsequently analyzed for fungi (including yeasts, molds, rusts, smuts, and mushrooms) by trained and experienced microbiologists at a laboratory accredited by the American Industrial Hygiene Association (AIHA) and that successfully participates in the AIHA Environmental Microbiology Proficiency Analytical Testing (EMPAT) Program. The airborne fungi assessment analytical data with supporting and background information appear in the enclosed table.

As presented in Table 21408001-1, the airborne spore count data recorded showed fungal spore types outdoors such as *Alternaria*, ascospores, basidiospores, *Chaetomium*, *Cladosporium*, colorless spores typical of *Penicillium/Aspergillus* species, *Curvularia*, *Epicoccum*, *Oidium*, other brown, *Pithomyces*, rusts, smuts, and/or *Stachybotrys*. In the indoor areas tested, the data showed that airborne fungal spores were either not detected at or above the laboratory detection limit indicated or were detected at low airborne concentrations. The fungal spore types found indoor included *Alternaria*, ascospores, basidiospores, *Chaetomium*, *Cladosporium*, colorless spores typical of *Penicillium/Aspergillus* species, *Curvularia*, *Epicoccum*, *Oidium*, other brown, rusts, smuts, and/or *Torula*. The distribution of fungal spore types detected in the surveyed areas was consistent with those found outdoors, and the overall data within the tested areas were well below the overall outdoor data recorded. These data are considered unremarkable and are not believed to pose a health risk beyond that posed by the outdoor environment where exposures to airborne fungi are expected.

Mr. David Gau September 18, 2014 Document No. 21408001.1 – August 2014 Random Sampling



Be advised that the data provided in this report only represent limited fungal growth and exposure potentials that existed at the time these surveys were performed and at the precise sample locations indicated. Note that fungal growth and exposure potentials may change due to changes in environmental conditions (such as those caused by water intrusion), use of mechanical systems, or other factors. Also be advised that additional fungal growth may exist at one or more locations in the structure that were not specifically assessed during the surveys.

If you have any comments or questions regarding the information contained in this correspondence, please feel free to contact our offices directly at (310) 370-8370.

Sincerely,

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HYGIENE TECHNOLOGIES INTERNATIONAL, INC.

ι ecnnicai Director



CLIENT: California State Board of Equalization 450 N Street Sacramento, California 94279 TABLE 21408001-1
AIRBORNE TOTAL FUNGI RESULTS
450 N STREET
SACRAMENTO, CALIFORNIA
AUGUST 4, 19, 25, AND 29, 2014

Page 1

Results reported in spores per cubic meter of air (spores/M³)

SAMPLE NUMBER	21408001-1 TM01OUT	21408001-1 TM02	21408001-1 TM03	21408001-1 TM04
SAMPLING LOCATION/ACTIVITIES	Outdoors; about 15 feet west of building; approximately five feet above ground/Normal outdoor activities	3 <sup>rd</sup> Floor; Room 317; Reception area; about center; approximately five feet above floor/Normal office activities	7 <sup>th</sup> Floor; Conference Room 709; about five feet west of entry door; approximately five feet above floor/Normal office activities	14 <sup>th</sup> Floor; Mail/Storage Room 14B; about center; approximately five feet above floor/Normal office activities
DATE	08/04/14	08/04/14	08/04/14	08/04/14
START/STOP	14:41:00/14:46:00	14:50:00/14:55:00	14:58:00/15:03:00	15:08:00/15:13:00
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria	40	13		
Ascospores	160			
Basidiospores	530			
Bipolaris/Drechslera group				
Botrytis				
Chaetomium	40			
Cladosporium	1,500	53		
Curvularia	53			
Epicoccum				
Fusarium				
Nigrospora				
Oidium				
Other brown				
Other colorless				
Penicillium/Aspergillus types	53	53		
Pithomyces				
Rusts				
Smuts (Periconia, Myxomycetes)	110	13		27
Stachybotrys				
Stemphylium				
Torula				
Ulocladium				
Hyphal fragments	67	<13	<13	<13
Background debris*	2+	2+	2+	2+
TOTAL**	2,500	80	<13	27

<sup>\*</sup>Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

<sup>\*\*</sup>Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.



CLIENT: California State Board of Equalization 450 N Street Sacramento, California 94279 TABLE 21408001-1
AIRBORNE TOTAL FUNGI RESULTS
450 N STREET
SACRAMENTO, CALIFORNIA
AUGUST 4, 19, 25, AND 29, 2014

Page 2

Results reported in spores per cubic meter of air (spores/M³)										
SAMPLE NUMBER	21408001-1 TM05	21408001-1 TM06	21408001-1 TM07OUT	21408001-1 TM08						
SAMPLING LOCATION/ACTIVITIES	19 <sup>th</sup> Floor; Column K17 area; Cubicle 26; entry area; approximately five feet above floor/Normal office activities	22 <sup>nd</sup> Floor; Column K18 area; about seven feet northeast of Column K18 approximately five feet above floor/Normal office activities	Outdoors; about 15 feet east of building; approximately five feet above ground/Normal outdoor activities	5 <sup>th</sup> Floor; Break Room 514; about five feet southwest of entry door; approximately five feet above floor/Normal office activities						
DATE	08/04/14	08/04/14	08/19/14	08/19/14						
START/STOP	15:17:00/15:22:00	15:29:00/15:34:00	15:03:00/15:08:00	15:27:00/15:32:00						
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes						
Alternaria			240							
Ascospores			1,000							
Basidiospores			1,400							
Bipolaris/Drechslera group										
Botrytis										
Chaetomium										
Cladosporium			4,400							
Curvularia										
Epicoccum			13							
Fusarium										
Nigrospora										
Oidium			53							
Other brown										
Penicillium/Aspergillus types			53							
Pithomyces										
Rusts										
Smuts (Periconia, Myxomycetes)			170							
Stachybotrys										
Stemphylium										
Torula										
Trichocladium										
Ulocladium										
Zygomycetes										
Hyphal fragments	<13	<13	150	<13						
Background debris*	2+	2+	2+	2+						
TOTAL**	<13	<13	7,400	<13						

<sup>\*</sup>Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

<sup>\*\*</sup>Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.



CLIENT: California State Board of Equalization 450 N Street Sacramento, California 94279 TABLE 21408001-1
AIRBORNE TOTAL FUNGI RESULTS
450 N STREET
SACRAMENTO, CALIFORNIA
AUGUST 4, 19, 25, AND 29, 2014

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Results reported in spores per cubic meter of air (spores/M³)

Results reported in spores per cubic meter of air (spores/M³)										
SAMPLE NUMBER	21408001-1 TM09	21408001-1 TM10	21408001-1 TM11	21408001-1 TM12						
SAMPLING LOCATION/ACTIVITIES	6 <sup>th</sup> Floor; Column K18 area; Cubicle 45; approximately five feet above floor/Normal office activities	9 <sup>th</sup> Floor; Column K17 area; Cubicle 9; about five feet east of entrance; approximately five feet above floor/Normal office activities	15 <sup>th</sup> Floor; Elevator Lobby; about center; approximately five feet above floor/Normal office activities	16 <sup>th</sup> Floor; Column J18; Cubicle 28; southeast corner; approximately five feet above floor/Normal office activities						
DATE	08/19/14	08/19/14	08/19/14	08/19/14						
START/STOP	15:37:00/15:42:00	15:47:00/15:52:00	15:56:00/16:01:00	16:03:00/16:08:00						
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes						
Alternaria	13	13								
Arthrinium										
Ascospores										
Basidiospores										
Bipolaris/Drechslera group										
Botrytis										
Chaetomium										
Cladosporium		53								
Curvularia										
Epicoccum										
Fusarium										
Nigrospora										
Oidium										
Other colorless		13								
Penicillium/Aspergillus types										
Pithomyces										
Rusts										
Smuts (Periconia, Myxomycetes)										
Stachybotrys										
Stemphylium										
Torula										
Ulocladium										
Hyphal fragments	<13	<13	13	<13						
Background debris*	1+	2+	2+	2+						
TOTAL**	13	80	<13	<13						

<sup>\*</sup>Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

<sup>\*\*</sup>Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.

**APPENDIX A** 

**CLIENT: California State Board of Equalization** 450 N Street Sacramento, California 94279

TABLE 21408001-1 AIRBORNE TOTAL FUNGI RESULTS **450 N STREET** SACRAMENTO, CALIFORNIA AUGUST 4, 19, 25, AND 29, 2014

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Results reported in spores per cubic meter of air (spores/M <sup>3</sup> )										
SAMPLE NUMBER	21408001-1 TM13	21408001-1 TM14OUT	21408001-1 TM15	21408001-1 TM16						
SAMPLING LOCATION/ACTIVITIES	20 <sup>th</sup> Floor; Column Outdoors; ab		2 <sup>nd</sup> Floor; Column M18 area; about 10 feet northeast of Column M18; approximately five feet above floor/Normal office activities	8 <sup>th</sup> Floor; Elevator Lobby; about center; approximately five feet above floor/Normal office activities						
DATE	08/19/14	08/25/14	08/25/14	08/25/14						
START/STOP	16:11:00/16:16:00	08:50:00/08:55:00	08:59:00/09:04:00	09:07:00/09:12:00						
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes						
Alternaria		13								
Ascospores										
Basidiospores										
Bipolaris/Drechslera group										
Botrytis										
Chaetomium		40								
Cladosporium	53	640		53						
Curvularia										
Epicoccum										
Nigrospora										
Oidium	13									
Other brown				13						
Other colorless										
Penicillium/Aspergillus types		1,100								
Pithomyces										
Rusts		13								
Smuts (Periconia, Myxomycetes)		410								
Stachybotrys		13								
Stemphylium										
Torula										
Ulocladium										
Zygomycetes										
Hyphal fragments	<13	<13	<13	<13						
Background debris*	2+	2+	1+	2+						
TOTAL**	67	2,200	<13	67						

<sup>\*</sup>Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

<sup>\*\*</sup>Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.

APPENDIX A

CLIENT: California State Board of Equalization 450 N Street Sacramento, California 94279 TABLE 21408001-1
AIRBORNE TOTAL FUNGI RESULTS
450 N STREET
SACRAMENTO, CALIFORNIA
AUGUST 4, 19, 25, AND 29, 2014

Page 5

Results reported in spores per cubic meter of air (spores/M³)

Results reported in spores per cubic meter of air (spores/M³)										
SAMPLE NUMBER	21408001-1 TM17	21408001-1 TM18	21408001-1 TM19	21408001-1 TM20OUT						
SAMPLING LOCATION/ACTIVITIES	11 <sup>th</sup> Floor; Column L22; about 10 feet southwest of Column L22; approximately five feet above floor/Normal office activities	17 <sup>th</sup> Floor; Column K18 area; about one foot west of Column K18; approximately five feet above floor/Normal office activities	18 <sup>th</sup> Floor; Column N22 area; about six feet east of Column N22; approximately five feet above floor/Normal office activities	Outdoors; about 10 feet southeast of building; approximately five feet above ground/Normal outdoor activities						
DATE	08/25/14	08/25/14	08/25/14	08/29/14						
START/STOP	09:17:00/09:22:00	09:27:00/09:32:00	09:36:00/09:41:00	15:57:00/16:02:00						
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes						
Alternaria			13	80						
Ascospores				210						
Basidiospores				530						
Bipolaris/Drechslera group										
Botrytis										
Chaetomium				13						
Cladosporium		53		3,800						
Curvularia				13						
Epicoccum										
Fusarium										
Myrothecium										
Nigrospora										
Oidium										
Other brown				13						
Penicillium/Aspergillus types				370						
Pithomyces				27						
Rusts										
Smuts (Periconia, Myxomycetes)			13							
Stemphylium										
Stachybotrys										
Torula										
Ulocladium										
Zygomycetes										
Hyphal fragments	<13	<13	<13	67						
Background debris*	2+	2+	2+	3+						
TOTAL**	<13	53	27	5,100						

<sup>\*</sup>Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

<sup>\*\*</sup>Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.

APPENDIX A

CLIENT: California State Board of Equalization 450 N Street Sacramento, California 94279 TABLE 21408001-1
AIRBORNE TOTAL FUNGI RESULTS
450 N STREET
SACRAMENTO, CALIFORNIA
AUGUST 4, 19, 25, AND 29, 2014

Page 6

Results reported in spores per cubic meter of air (spores/M³)

Results reported in spores per cubic meter of air (spores/M³)										
SAMPLE NUMBER	21408001-1 TM21	21408001-1 TM22	21408001-1 TM23	21408001-1 TM24						
SAMPLING LOCATION/ACTIVITIES	1 <sup>st</sup> Floor; Mail Room 143 ; about center; approximately five feet above floor/Normal office activities	4 <sup>th</sup> Floor; south corridor; about five feet south of Freight Elevator; approximately five feet above floor/Normal office activities	10 <sup>th</sup> Floor; Break Room 1004; about center; approximately five feet above floor/Normal office activities	21 <sup>st</sup> Floor; about 15 feet north of Column K18; approximately feet above floor/Sampling activities only						
DATE	08/29/14	08/29/14	08/29/14	08/29/14						
START/STOP	09:29:00/09:34:00	16:15:00/16:20:00	16:22:00/16:27:00	16:39:00/16:44:00						
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes						
Alternaria	53		40							
Ascospores										
Basidiospores										
Bipolaris/Drechslera group										
Botrytis										
Chaetomium	53									
Cladosporium	270	160	270							
Curvularia										
Epicoccum										
Fusarium										
Myrothecium										
Nigrospora										
Oidium										
Other brown		13	13							
Penicillium/Aspergillus types										
Pithomyces										
Rusts										
Smuts (Periconia, Myxomycetes)		13								
Stachybotrys										
Stemphylium										
Torula										
Ulocladium										
Hyphal fragments	<13	<13	<13	<13						
Background debris*	2+	2+	2+	1+						
TOTAL**	370	190	320	<13						

<sup>\*</sup>Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

<sup>\*\*</sup>Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.

APPENDIX A

CLIENT: California State Board of Equalization 450 N Street Sacramento, California 94279 TABLE 21408001-1
AIRBORNE TOTAL FUNGI RESULTS
450 N STREET
SACRAMENTO, CALIFORNIA
AUGUST 4, 19, 25, AND 29, 2014

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				Page 7
SAMPLE NUMBER	21408001-1 TM25	21408001-1 TM26		
SAMPLING LOCATION/ACTIVITIES	23 <sup>rd</sup> Floor; Room 2314; Reception Area; about center; approximately five feet above floor/Normal office activities	24 <sup>th</sup> Floor; Room 2447; about center; approximately five feet above floor/Normal office activities	This column intentionally left blank	This column intentionally left blank
DATE	08/29/14	08/29/14		
START/STOP	16:47:00/16:52:00	16:55:00/17:00:00		
SAMPLE TIME	5 minutes	5 minutes		
Alternaria	27	40		
Ascospores		110		
Basidiospores	53	53		
Bipolaris/Drechslera group				
Botrytis				
Chaetomium				
Cladosporium		210		
Curvularia		13		
Epicoccum		13		
Helicoma				
Myrothecium				
Nigrospora				
Oidium				
Other brown		13		
Penicillium/Aspergillus types				
Pithomyces				
Rusts		13		
Smuts (Periconia, Myxomycetes)		27		
Stachybotrys				
Stemphylium				
Torula		13		
Ulocladium				
Hyphal fragments	<13	13		
Background debris*	2+	2+		
TOTAL**	80	510		

<sup>\*</sup>Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

<sup>\*\*</sup>Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.



Report for:

Mr. Kenny Hsi, Mr. Lakhpreet Sandhu Hygiene Technologies International, Inc. 3625 Del Amo Boulevard, Suite 180 Torrance, CA 90503-8370

Regarding: Project: 21408001-1

EMĹ ID: 1242895

Approved by:

Cooknies Managar

Technical Manager Melissa Tracey Dates of Analysis:

Spore trap analysis: 08-06-2014

Service SOPs: Spore trap analysis (1038) AIHA-LAP, LLC accredited service, Lab ID #179768

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu Re: 21408001-1

Date of Sampling: 08-04-2014 Date of Receipt: 08-05-2014 Date of Report: 08-06-2014

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	21408001-	1 TM01 OUT	2140800	01-1 TM02	21408001-1 TM03	
Comments (see below)	N	None	None		N	Vone
Lab ID-Version‡:	5655238-1		5655239-1		5655240-1	
Analysis Date:	08/0	06/2014	08/0	06/2014	08/0	06/2014
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria	3	40	1	13		_
Ascospores	3	160				
Basidiospores	10	530				
Botrytis						
Chaetomium	3	40				
Cladosporium	29	1,500				
Curvularia	4	53				
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other colorless						
Penicillium/Aspergillus types†	1	53	1	53		
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes	8	110	1	13		
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	2+		2+		2+	
Hyphal fragments/m3	67		< 13		< 13	
Pollen/m3	< 13		< 13		< 13	
Skin cells (1-4+)	< 1+		1+		1+	
Sample volume (liters)	75		75		75	
§ TOTAL SPORES/m3		2,500		80		< 13

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

EMLab P&K, LLC EMLab ID: 1242895, Page 2 of 3

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu Re: 21408001-1

Date of Sampling: 08-04-2014 Date of Receipt: 08-05-2014 Date of Report: 08-06-2014

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	214080	01-1 TM04	2140800	01-1 TM05	21408001-1 TM06	
Comments (see below)	None		None		None	
Lab ID-Version‡:	565	5241-1	565	5242-1	565	5243-1
Analysis Date:	08/0	06/2014	08/0	06/2014	08/0	06/2014
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria		_		_		_
Ascospores						
Basidiospores						
Botrytis						
Chaetomium						
Cladosporium						
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other colorless						
Penicillium/Aspergillus types†						
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes	2	27				
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	2+		2+		2+	
Hyphal fragments/m3	< 13		< 13		< 13	
Pollen/m3	< 13		< 13		< 13	
Skin cells (1-4+)	1+		1+		1+	
Sample volume (liters)	75		75		75	
§ TOTAL SPORES/m3		27		< 13		< 13

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

EMLab P&K, LLC

EMLab ID: 1242895, Page 3 of 3

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-04-2014 Date of Receipt: 08-05-2014 Date of Report: 08-06-2014

## MoldRANGE<sup>TM</sup>: Extended Outdoor Comparison Outdoor Location: 21408001-1 TM01 OUT

Fungi Identified	Outdoor	,	Typica	l Outo	loor Da	ata for	:	ı	Typica	l Outd	loor Da	ata for	$\overline{\cdot}$
	data	Au	gust in	Califo	rnia† (r	n‡=179	74)	The entire year in California† (n‡=200710)					
	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	40	13	13	27	53	93	59	13	13	27	67	110	53
Bipolaris/Drechslera group	-	9	13	13	27	50	16	7	13	13	27	40	12
Chaetomium	40	10	13	13	27	53	24	8	13	13	27	47	19
Cladosporium	1,500	160	270	690	1,600	2,500	99	110	210	610	1,600	2,800	97
Curvularia	53	8	13	13	27	53	12	7	13	13	27	53	6
Nigrospora	-	7	13	13	27	53	12	7	13	13	27	53	8
Penicillium/Aspergillus types	53	53	110	270	670	1,100	88	53	100	210	590	1,000	84
Stachybotrys	-	7	13	13	27	60	5	7	13	13	33	67	4
Torula	-	8	13	13	40	67	14	8	13	13	40	67	12
Seldom found growing indoors**													
Ascospores	160	13	33	80	210	320	67	25	53	110	360	690	71
Basidiospores	530	40	53	160	370	630	92	53	80	260	990	2,300	93
Rusts	-	13	13	13	40	67	25	13	13	13	53	80	26
Smuts, Periconia, Myxomycetes	110	13	13	40	93	160	70	13	13	40	110	210	68
§ TOTAL SPORES/m3	2,500												

†The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

\*\* These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

 $\ddagger$ n = number of samples used to calculate data.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, EMLab P&K may not have received and tested a representative number of samples for every region or time period. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

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<sup>\*</sup> The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-04-2014 Date of Receipt: 08-05-2014 Date of Report: 08-06-2014

#### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

Outdoor Summary: 21408001-1 TM01 OUT:

Species detected		Outdoo	r sample sp	ores/m3	Typical outdoor ranges	Freq.
	<100	1K	10K	>100K	(North America)	%
Alternaria				40	7 - 33 - 600	45
Ascospores				160	13 - 210 - 5,900	76
Basidiospores				530	] 19 - 450 - 24,000	92
Chaetomium				40	7 - 13 - 160	9
Cladosporium				1,500	27 - 470 - 10,000	90
Curvularia				53	7 - 27 - 590	17
Penicillium/Aspergillus types				53	] 13 - 170 - 2,700	68
Smuts, Periconia, Myxomycetes				110	7 - 53 - 930	63
Total				2,500		

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurrence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

#### **Indoor Samples**

**Location:** 21408001-1 TM02

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: 3%	dF: 4 Result: 5.0667 Critical value: 9.4877 Inside Similar: Yes	Result: 0.5455		dF: 8 Result: -0.1905 Critical value: 0.6190 Outside Similar: No	Score: 108 Result: Low	
Species 1	Detected			Spores/m3		
		<100	1K	10K	>100K	
	Alternaria				13	
Penicillium/Aspergillus types					53	
Smuts, Periconia, Myxomycetes		3			13	
	Total				80	

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: < 1%	dF: 4 Result: 5.0667 Critical value: 9.4877 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low
Species 1	Detected			
		<100 1K	10K	>100K
	None Detected			< 13

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-04-2014 Date of Receipt: 08-05-2014 Date of Report: 08-06-2014

#### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

**Location:** 21408001-1 TM04

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)		ement ratio** oor/outdoor)	corre	rman rank elation*** or/outdoor)	MoldSCORE**** (indoor/outdoor)			
Result: 1%	dF: 4 Result: 5.0667 Critical value: 9.4877 Inside Similar: Yes	Re	esult: 0.2222	Critical	dF: 8 ult: 0.3929 value: 0.6190 e Similar: No	Score: 105 Result: Low			
Species	Detected			Sp	ores/m3				
		<100	1K		10K	>100K			
Smuts, F	Smuts, Periconia, Myxomycetes					27			
	Total					27			

**Location:** 21408001-1 TM05

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: < 1%	dF: 4 Result: 5.0667 Critical value: 9.4877 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low
Species 1	Detected	100	10017	
	None Detected	<100 1K	10K	>100K

**Location:** 21408001-1 TM06

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)		ement ratio** oor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: < 1%	dF: 4 Result: 5.0667 Critical value: 9.4877 Inside Similar: Yes	R	esult: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low
Species 1	Detected				
		<100	1K	10K	>100K
	None Detected				< 13

<sup>\*</sup> The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

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<sup>\*\*</sup> An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-04-2014 Date of Receipt: 08-05-2014 Date of Report: 08-06-2014

#### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

\*\*\* The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

\*\*\*\* MoldSCORE<sup>TM</sup> is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source. EMLab P&Kreserves the right to, and may at anytime, modify or change the MoldScore algorithm without notice.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

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Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-04-2014 Date of Receipt: 08-05-2014 Date of Report: 08-06-2014

**MoldSCORE**<sup>TM</sup>: **Spore Trap Report Outdoor Sample:** 21408001-1 TM01 OUT

Fungi Identified	Οι	ıtd	loc	r	sam	ple	e s	poi	es/	m3	Raw	Spores/
	<10	0		1	K			10K	>	>100I	count	m3
Generally able to grow indoors*												
Alternaria											3	40
Bipolaris/Drechslera group											ND	< 13
Chaetomium											3	40
Cladosporium											29	1,500
Curvularia											4	53
Nigrospora											ND	< 13
Penicillium/Aspergillus types†											1	53
Stachybotrys											ND	< 13
Torula											ND	< 13
Seldom found growing indoors**												
Ascospores											3	160
Basidiospores							$\prod$				10	530
Rusts											ND	< 13
Smuts, Periconia, Myxomycetes											8	110
Total												2,533

Fungi Identified	Ir	ıdo	or	sa	mլ	ole	S	poi	res	/m	13	Raw	Spores/
	<10	0		1K				10K		>1	001	count	m3
Generally able to grow indoors*													
Alternaria												1	13
Bipolaris/Drechslera group												ND	< 13
Chaetomium												ND	< 13
Cladosporium												ND	< 13
Curvularia												ND	< 13
Nigrospora												ND	< 13
Penicillium/Aspergillus types†												1	53
Stachybotrys												ND	< 13
Torula												ND	< 13
Seldom found growing indoors**													
Ascospores												ND	< 13
Basidiospores												ND	< 13
Rusts												ND	< 13
Smuts, Periconia, Myxomycetes												1	13
Total													80

г	MoldSCORE;																		
1	0	0				N	1			d )(		•	U	(	)		E 00		
┝																			
							Г										П	+	105
L					L													1	105
																			100
																			100
																			100
																		Ī	100
																		1	100
																		1	108
																		Ī	100
																		1	100
																		1	100
																			100
																		1	100
																		1	102
	Final MoldSCORE									108									

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-04-2014 Date of Receipt: 08-05-2014 Date of Report: 08-06-2014

### $\textbf{MoldSCORE}^{\text{TM}}\textbf{:} \textbf{ Spore Trap Report}$

**Location:** 21408001-1 TM03

Fungi Identified	Ind	Indoor sample spores/m3							;	Raw	Spores/
_	<100		1	K		10K	1	>100	)K	count	m3
Generally able to grow indoors*											
Alternaria										ND	< 13
Bipolaris/Drechslera group										ND	< 13
Chaetomium										ND	< 13
Cladosporium										ND	< 13
Curvularia										ND	< 13
Nigrospora										ND	< 13
Penicillium/Aspergillus types†										ND	< 13
Stachybotrys										ND	< 13
Torula										ND	< 13
Seldom found growing indoors**											
Ascospores										ND	< 13
Basidiospores										ND	< 13
Rusts										ND	< 13
Smuts, Periconia, Myxomycetes										ND	< 13
Total											N/A

MoldSCO 200	<b>RE</b> :	
		100
		100
		100
		100
		100
		100
		100
		100
		100
		100
		100
		100
		100
Final MoldSCO	RE	100

Fungi Identified	Inc	loo	r s	amj	ple	S	por	es/i	m3		Raw	Spores/
	<100			١K			10K	2	>100	K	count	m3
Generally able to grow indoors*												
Alternaria					Ш						ND	< 13
Bipolaris/Drechslera group			Ш		Ш						ND	< 13
Chaetomium			Ш								ND	< 13
Cladosporium			Ш								ND	< 13
Curvularia											ND	< 13
Nigrospora			Ш								ND	< 13
Penicillium/Aspergillus types†			Ш								ND	< 13
Stachybotrys											ND	< 13
Torula											ND	< 13
Seldom found growing indoors**	<u></u>											
Ascospores											ND	< 13
Basidiospores											ND	< 13
Rusts											ND	< 13
Smuts, Periconia, Myxomycetes											2	27
Total												27

100	MoldSCORE‡ 100 200 300 Score												
			100										
			100										
			100										
			100										
			100										
			100										
			100										
			100										
			100										
			100										
			100										
			100										
			105										
Fina	al MoldSCO	ORE	105										

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-04-2014 Date of Receipt: 08-05-2014 Date of Report: 08-06-2014

### $\textbf{MoldSCORE}^{\text{TM}}\textbf{:} \textbf{ Spore Trap Report}$

**Location:** 21408001-1 TM05

Fungi Identified	Ind	Indoor sample spores/m3							}	Raw	Spores/	
_	<100			1K			10 <b>K</b>	>	-100	K	count	m3
Generally able to grow indoors*												
Alternaria											ND	< 13
Bipolaris/Drechslera group											ND	< 13
Chaetomium											ND	< 13
Cladosporium											ND	< 13
Curvularia											ND	< 13
Nigrospora											ND	< 13
Penicillium/Aspergillus types†											ND	< 13
Stachybotrys											ND	< 13
Torula											ND	< 13
Seldom found growing indoors**												
Ascospores											ND	< 13
Basidiospores											ND	< 13
Rusts											ND	< 13
Smuts, Periconia, Myxomycetes											ND	< 13
Total							•					N/A

,			
100	Score		
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
Fina	l MoldSC	ORE	100

Fungi Identified	Inc	Indoor sample spores/m3					Raw	Spores/		
	<100		1 F	(		10K	>100	K	count	m3
Generally able to grow indoors*										
Alternaria						Ш			ND	< 13
Bipolaris/Drechslera group									ND	< 13
Chaetomium									ND	< 13
Cladosporium						Ш			ND	< 13
Curvularia									ND	< 13
Nigrospora									ND	< 13
Penicillium/Aspergillus types†									ND	< 13
Stachybotrys									ND	< 13
Torula									ND	< 13
Seldom found growing indoors**										
Ascospores									ND	< 13
Basidiospores									ND	< 13
Rusts									ND	< 13
Smuts, Periconia, Myxomycetes						Ш			ND	< 13
Total										N/A

100	100 <b>MoldSCORE</b> ; Score								
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
Fina	Final MoldSCORE								

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-04-2014 Date of Receipt: 08-05-2014 Date of Report: 08-06-2014

#### MoldSCORETM: Spore Trap Report

\* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

\*\* These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of

a single morphological type of basidiospore on an inside sample should be considered significant.

†The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods.

‡Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.

EMLab P&K, LLC EMLab ID: 1242895, Page 4 of 4



Report for:

Mr. Kenny Hsi, Mr. Lakhpreet Sandhu Hygiene Technologies International, Inc. 3625 Del Amo Boulevard, Suite 180 Torrance, CA 90503-8370

Regarding: Project: 21408001-1

EMĹ ID: 1249822

Approved by:

Technical Manager Melissa Tracey Dates of Analysis:

Spore trap analysis: 08-21-2014

Service SOPs: Spore trap analysis (1038) AIHA-LAP, LLC accredited service, Lab ID #179768

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu Re: 21408001-1

Date of Sampling: 08-19-2014 Date of Receipt: 08-20-2014 Date of Report: 08-21-2014

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	21408001-1 TM07OUT		2140800	01-1 TM08	2140800	01-1 TM09	21408001-1 TM10	
Comments (see below)	N	lone	N	lone	N	Vone	N	Vone
Lab ID-Version‡:	5686214-1		568	6215-1	568	6216-1	5686217-1	
Analysis Date:	08/2	1/2014	08/2	1/2014	08/2	21/2014	08/2	21/2014
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria	18	240			1	13	1	13
Ascospores	19	1,000						
Basidiospores	27	1,400						
Chaetomium		,						
Cladosporium	83	4,400					1	53
Curvularia								
Epicoccum	1	13						
Fusarium								
Myrothecium								
Nigrospora								
Oidium	4	53						
Other colorless							1	13
Penicillium/Aspergillus types†	1	53						
Pithomyces								
Rusts								
Smuts, Periconia, Myxomycetes	13	170						
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Background debris (1-4+)††	2+		2+		1+		2+	
Hyphal fragments/m3	150		< 13		< 13		< 13	
Pollen/m3	< 13		< 13		< 13		< 13	
Skin cells (1-4+)	< 1+		1+		< 1+		1+	
Sample volume (liters)	75		75		75		75	
§ TOTAL SPORES/m3		7,400		< 13		13		80

#### **Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

EMLab P&K, LLC EMLab ID: 1249822, Page 2 of 3

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu Re: 21408001-1

Date of Sampling: 08-19-2014 Date of Receipt: 08-20-2014 Date of Report: 08-21-2014

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	214080	01-1 TM11	2140800	01-1 TM12	214080	01-1 TM13	
Comments (see below)	ľ	None	N	Vone	None		
Lab ID-Version‡:	5686218-1		568	6219-1	5686220-1		
Analysis Date:	08/2	21/2014	08/2	21/2014	08/2	1/2014	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	
Alternaria		_		-		_	
Ascospores							
Basidiospores							
Chaetomium							
Cladosporium					1	53	
Curvularia							
Epicoccum							
Fusarium							
Myrothecium							
Nigrospora							
Oidium					1	13	
Other colorless							
Penicillium/Aspergillus types†							
Pithomyces							
Rusts							
Smuts, Periconia, Myxomycetes							
Stachybotrys							
Stemphylium							
Torula							
Ulocladium							
Zygomycetes							
Background debris (1-4+)††	2+		2+		2+		
Hyphal fragments/m3	13		< 13		< 13		
Pollen/m3	< 13		< 13		< 13		
Skin cells (1-4+)	1+		1+		1+		
Sample volume (liters)	75		75		75		
§ TOTAL SPORES/m3		< 13		< 13		67	

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

EMLab P&K, LLC

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-19-2014 Date of Receipt: 08-20-2014 Date of Report: 08-21-2014

## MoldRANGE<sup>TM</sup>: Extended Outdoor Comparison Outdoor Location: 21408001-1 TM07OUT

Fungi Identified	Outdoor	Typical Outdoor Data for:			Typical Outdoor Data for:								
	data	Au	August in California† (n‡=17975)			The entire year in California† (n‡=200698)							
	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	240	13	13	27	53	93	59	13	13	27	67	110	53
Bipolaris/Drechslera group	-	9	13	13	27	50	16	7	13	13	27	40	12
Chaetomium	-	10	13	13	27	53	24	8	13	13	27	47	19
Cladosporium	4,400	160	270	690	1,600	2,500	99	110	210	610	1,600	2,800	97
Curvularia	-	8	13	13	27	53	12	7	13	13	27	53	6
Epicoccum	13	8	13	13	27	53	22	8	13	13	33	53	19
Nigrospora	-	7	13	13	27	53	12	7	13	13	27	53	8
Other colorless	-	11	13	13	33	53	5	10	13	13	27	53	5
Penicillium/Aspergillus types	53	53	110	270	670	1,100	88	53	100	210	590	1,000	84
Stachybotrys	-	7	13	13	27	60	5	7	13	13	33	67	4
Torula	-	8	13	13	40	67	14	8	13	13	40	67	12
Seldom found growing indoors**													
Ascospores	1,000	13	33	80	210	320	67	25	53	110	360	690	71
Basidiospores	1,400	40	53	160	370	630	92	53	80	260	990	2,300	93
Oidium	53	13	13	13	40	67	19	13	13	13	44	75	19
Rusts	-	13	13	13	40	67	25	13	13	13	53	80	26
Smuts, Periconia, Myxomycetes	170	13	13	40	93	160	70	13	13	40	110	210	68
§ TOTAL SPORES/m3	7,400												

<sup>†</sup>The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, EMLab P&K may not have received and tested a representative number of samples for every region or time period. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

EMLab P&K, LLC EMLab ID: 1249822, Page 1 of 1

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

<sup>\*</sup> The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

<sup>\*\*</sup> These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

 $<sup>\</sup>ddagger$ n = number of samples used to calculate data.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-19-2014 Date of Receipt: 08-20-2014 Date of Report: 08-21-2014

#### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

Outdoor Summary: 21408001-1 TM07OUT:

Species detected		Outdoor sample spores/m3			Typical outdoor ranges	Freq.
	<100	1K	10K	>100K	(North America)	%
Alternaria				240	7 - 33 - 600	45
Ascospores				1,000	] 13 - 210 - 5,900	76
Basidiospores				1,400	] 19 - 450 - 24,000	92
Cladosporium				4,400	] 27 - 460 - 10,000	90
Epicoccum				13	] 7 - 20 - 330	24
Oidium				53	] 7 - 13 - 210	11
Penicillium/Aspergillus types				53	] 13 - 170 - 2,700	68
Smuts, Periconia, Myxomycetes				170	7 - 53 - 920	63
Total				7,400	]	

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurrence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

#### **Indoor Samples**

**Location:** 21408001-1 TM08

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: < 1%	dF: 5 Result: 5.1429 Critical value: 11.0705 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low		
Species 1	Detected	Spores/m3				
		<100 1K	10K	>100K		
	None Detected			< 13		

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: < 1%	dF: 5 Result: 5.1429 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2222		dF: 8 Result: 0.3869 Critical value: 0.6190 Outside Similar: No	Score: 105 Result: Low	
Species 1	Detected	Spores/m3				
		<100	1K	10K	>100K	
	Alternaria				13	
	Total				13	

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-19-2014 Date of Receipt: 08-20-2014 Date of Report: 08-21-2014

### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

**Location:** 21408001-1 TM10

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: 1%	dF: 5 Result: 5.1429 Critical value: 11.0705 Inside Similar: Yes	Result: 0.3636		dF: 9 Result: 0.3208 Critical value: 0.5833 Outside Similar: No	Score: 109 Result: Low		
Species 1	Detected			Spores/m3			
		<100	1K	10K	>100K		
	Alternaria				13		
Cladosporium					53		
Other colorless					13		
	Total				80		

**Location:** 21408001-1 TM11

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: < 1%	dF: 5 Result: 5.1429 Critical value: 11.0705 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low		
Species 1	Detected	Spores/m3				
		<100 1K	10K	>100K		
	None Detected			< 13		

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: < 1%	dF: 5 Result: 5.1429 Critical value: 11.0705 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low		
Species	Detected	Spores/m3				
		<100 1K	10K	>100K		
	None Detected			< 13		

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-19-2014 Date of Receipt: 08-20-2014 Date of Report: 08-21-2014

#### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

**Location:** 21408001-1 TM13

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)		eement ratio** loor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: < 1%	dF: 5 Result: 5.1429 Critical value: 11.0705 Inside Similar: Yes	R	Result: 0.4000	dF: 8 Result: 0.4226 Critical value: 0.6190 Outside Similar: No	Score: 101 Result: Low
Species 1	Detected			Spores/m3	
		<100	1K	10K	>100K
	Cladosporium				53
	Oidium				13
	Total				67

<sup>\*</sup> The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

\*\*\*\* MoldSCORE<sup>TM</sup> is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source. EMLab P&Kreserves the right to, and may at anytime, modify or change the MoldScore algorithm without notice.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

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<sup>\*\*</sup> An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

<sup>\*\*\*</sup> The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu Re: 21408001-1

Date of Sampling: 08-19-2014 Date of Receipt: 08-20-2014 Date of Report: 08-21-2014

MoldSCORETM: Spore Trap Report

Outdoor Sample: 21408001-1 TM07OUT

Fungi Identified	Οι	ıtd	lo	or	saı	np	le	S	po	re	s/	m3	3	Raw	Spores/
_	<10	0			1K				- 10K		>	1001	K	count	m3
Generally able to grow indoors*															
Alternaria														18	240
Bipolaris/Drechslera group														ND	< 13
Chaetomium														ND	< 13
Cladosporium														83	4,400
Curvularia														ND	< 13
Epicoccum														1	13
Nigrospora														ND	< 13
Penicillium/Aspergillus types†														1	53
Stachybotrys														ND	< 13
Torula														ND	< 13
Seldom found growing indoors**															
Ascospores														19	1,000
Basidiospores														27	1,400
Oidium														4	53
Rusts														ND	< 13
Smuts, Periconia, Myxomycetes														13	170
Total															7,413

Fungi Identified	Indoor sample spores/m3								Raw	S	spores/	
	<100		1	K			10K	>	>100	coun	<u>t</u>	m3
Generally able to grow indoors*												
Alternaria										ND		< 13
Bipolaris/Drechslera group										ND		< 13
Chaetomium										ND		< 13
Cladosporium										ND		< 13
Curvularia										ND		< 13
Nigrospora										ND		< 13
Penicillium/Aspergillus types†										ND		< 13
Stachybotrys										ND		< 13
Torula										ND		< 13
Seldom found growing indoors**												
Ascospores										ND		< 13
Basidiospores										ND		< 13
Rusts										ND		< 13
Smuts, Periconia, Myxomycetes										ND		< 13
Total												N/A

100	MoldSC 200	ORE: 300	
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
Fin	al MoldSC	ORE	100

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-19-2014 Date of Receipt: 08-20-2014 Date of Report: 08-21-2014

### $\textbf{MoldSCORE}^{\text{TM}}\textbf{:} \textbf{ Spore Trap Report}$

**Location:** 21408001-1 TM09

Fungi Identified	Ind	001	r saı	npl	e s	pore	s/r	n3	Raw	Spores/
	<100		1K			10K	>	100F	count	m3
Generally able to grow indoors*										
Alternaria									1	13
Bipolaris/Drechslera group									ND	< 13
Chaetomium									ND	< 13
Cladosporium									ND	< 13
Curvularia									ND	< 13
Nigrospora									ND	< 13
Penicillium/Aspergillus types†									ND	< 13
Stachybotrys									ND	< 13
Torula									ND	< 13
Seldom found growing indoors**										
Ascospores									ND	< 13
Basidiospores					П				ND	< 13
Rusts									ND	< 13
Smuts, Periconia, Myxomycetes									ND	< 13
Total						•				13

100	Score		
			105
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
Final	MoldSCC	RE	105

Fungi Identified	Indoor sample spores/m3								3	Raw	Spores/	
	<10	0		1K			1	10K	>100	0K	count	m3
Generally able to grow indoors*												
Alternaria											1	13
Bipolaris/Drechslera group											ND	< 13
Chaetomium			Ш								ND	< 13
Cladosporium											1	53
Curvularia											ND	< 13
Nigrospora											ND	< 13
Other colorless											1	13
Penicillium/Aspergillus types†											ND	< 13
Stachybotrys											ND	< 13
Torula											ND	< 13
Seldom found growing indoors**												
Ascospores											ND	< 13
Basidiospores											ND	< 13
Rusts											ND	< 13
Smuts, Periconia, Myxomycetes											ND	< 13
Total												80

100	MoldSCORE; 200 300 Score									
			104							
			100							
			100							
			100							
			100							
			100							
			105							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
Fina	l MoldSCO	RE	109							

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-19-2014 Date of Receipt: 08-20-2014 Date of Report: 08-21-2014

### MoldSCORE<sup>TM</sup>: Spore Trap Report

**Location:** 21408001-1 TM11

Fungi Identified	Indo	or sam	ple s	spore	s/m3	Raw	Spores/
	<100	1K		10K	>100	K count	m3
Generally able to grow indoors*							
Alternaria						ND	< 13
Bipolaris/Drechslera group						ND	< 13
Chaetomium						ND	< 13
Cladosporium						ND	< 13
Curvularia						ND	< 13
Nigrospora						ND	< 13
Penicillium/Aspergillus types†						ND	< 13
Stachybotrys						ND	< 13
Torula						ND	< 13
Seldom found growing indoors**					•		
Ascospores						ND	< 13
Basidiospores						ND	< 13
Rusts						ND	< 13
Smuts, Periconia, Myxomycetes						ND	< 13
Total							N/A

,			
100	Score		
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
Fina	al MoldSC	ORE	100

Fungi Identified	Ind	oor	sam	ple	spore	es/m3	Raw	Spores/
	<100		1K		10K	>100	count	m3
Generally able to grow indoors*								
Alternaria							ND	< 13
Bipolaris/Drechslera group							ND	< 13
Chaetomium							ND	< 13
Cladosporium							ND	< 13
Curvularia							ND	< 13
Nigrospora							ND	< 13
Penicillium/Aspergillus types†							ND	< 13
Stachybotrys							ND	< 13
Torula							ND	< 13
Seldom found growing indoors**								
Ascospores							ND	< 13
Basidiospores							ND	< 13
Rusts							ND	< 13
Smuts, Periconia, Myxomycetes							ND	< 13
Total								N/A

100	MoldSCORE; 100 200 300 Score								
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
Final	MoldSCO	RE	100						

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-19-2014 Date of Receipt: 08-20-2014 Date of Report: 08-21-2014

MoldSCORETM: Spore Trap Report

**Location:** 21408001-1 TM13

Fungi Identified	Iı	Indoor sample spores/m3						3	Raw	Spores/				
	<10	00		1	K			10	K	3	>10	0 <b>K</b>	count	m3
Generally able to grow indoors*														
Alternaria													ND	< 13
Bipolaris/Drechslera group													ND	< 13
Chaetomium													ND	< 13
Cladosporium													1	53
Curvularia													ND	< 13
Nigrospora													ND	< 13
Penicillium/Aspergillus types†													ND	< 13
Stachybotrys													ND	< 13
Torula													ND	< 13
<b>Seldom found growing indoors**</b>														
Ascospores													ND	< 13
Basidiospores													ND	< 13
Oidium													1	13
Rusts													ND	< 13
Smuts, Periconia, Myxomycetes													ND	< 13
Total														67

100	Score		
			100
			100
			100
			101
			100
			100
			100
			100
			100
			100
			100
			105
			100
			100
Fina	al MoldSC	ORE	101

<sup>\*</sup> The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

EMLab P&K, LLC EMLab ID: 1249822, Page 4 of 4

<sup>\*\*</sup> These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

<sup>†</sup>The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods.

<sup>‡</sup>Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.



Report for:

Mr. Kenny Hsi, Mr. Lakhpreet Sandhu Hygiene Technologies International, Inc. 3625 Del Amo Boulevard, Suite 180 Torrance, CA 90503-8370

Regarding: Project: 21408001-1 EML ID: 1251553

Approved by:

Technical Manager Melissa Tracey Dates of Analysis:

Spore trap analysis: 08-26-2014

Service SOPs: Spore trap analysis (1038) AIHA-LAP, LLC accredited service, Lab ID #179768

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu Re: 21408001-1

Date of Sampling: 08-25-2014 Date of Receipt: 08-25-2014 Date of Report: 08-26-2014

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	21408001-	1 TM14 OUT	2140800	)1-1 TM15	21408001-1 TM16		
Comments (see below)	1	None	N	lone	1	None	
Lab ID-Version‡:	5694112-1		569	4113-1	5694114-1		
Analysis Date:	08/26/2014		08/2	6/2014	08/26/2014		
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	
Alternaria	1	13		-		·	
Ascospores							
Basidiospores							
Bipolaris/Drechslera group							
Botrytis							
Chaetomium	3	40					
Cladosporium	12	640			1	53	
Curvularia							
Epicoccum							
Fusarium							
Myrothecium							
Nigrospora							
Other brown					1	13	
Other colorless							
Penicillium/Aspergillus types†	20	1,100					
Pithomyces							
Rusts	1	13					
Smuts, Periconia, Myxomycetes	31	410					
Stachybotrys	1	13					
Stemphylium							
Torula							
Ulocladium							
Background debris (1-4+)††	2+		1+		2+		
Hyphal fragments/m3	< 13		< 13		< 13		
Pollen/m3	40		< 13		< 13		
Skin cells (1-4+)	< 1+		< 1+		1+		
Sample volume (liters)	75		75		75		
§ TOTAL SPORES/m3		2,200		< 13		67	

#### **Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

EMLab P&K, LLC

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<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu Re: 21408001-1

Date of Sampling: 08-25-2014 Date of Receipt: 08-25-2014 Date of Report: 08-26-2014

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	214080	01-1 TM17	2140800	01-1 TM18	21408001-1 TM19		
Comments (see below)	None		N	Vone	None		
Lab ID-Version‡:	5694115-1		569	4116-1	5694117-1		
Analysis Date:	08/2	26/2014	08/2	26/2014	08/26/2014		
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	
Alternaria		_		•	1	13	
Ascospores							
Basidiospores							
Bipolaris/Drechslera group							
Botrytis							
Chaetomium							
Cladosporium			1	53			
Curvularia							
Epicoccum							
Fusarium							
Myrothecium							
Nigrospora							
Other brown							
Other colorless							
Penicillium/Aspergillus types†							
Pithomyces							
Rusts							
Smuts, Periconia, Myxomycetes					1	13	
Stachybotrys							
Stemphylium							
Torula							
Ulocladium							
Background debris (1-4+)††	2+		2+		2+		
Hyphal fragments/m3	< 13		< 13		< 13		
Pollen/m3	< 13		< 13		< 13		
Skin cells (1-4+)	1+		1+		1+		
Sample volume (liters)	75		75		75		
§ TOTAL SPORES/m3		< 13		53		27	

#### **Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

EMLab P&K, LLC

EMLab ID: 1251553, Page 3 of 3

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-25-2014 Date of Receipt: 08-25-2014 Date of Report: 08-26-2014

## MoldRANGE<sup>TM</sup>: Extended Outdoor Comparison Outdoor Location: 21408001-1 TM14 OUT

Fungi Identified	Outdoor	Typical Outdoor Data for:					Typical Outdoor Data for:					:	
	data	August in California† (n‡=17975)				The entire year in California† (n‡=200698)							
	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	13	13	13	27	53	93	59	13	13	27	67	110	53
Bipolaris/Drechslera group	-	9	13	13	27	50	16	7	13	13	27	40	12
Chaetomium	40	10	13	13	27	53	24	8	13	13	27	47	19
Cladosporium	640	160	270	690	1,600	2,500	99	110	210	610	1,600	2,800	97
Curvularia	-	8	13	13	27	53	12	7	13	13	27	53	6
Nigrospora	-	7	13	13	27	53	12	7	13	13	27	53	8
Other brown	-	13	13	13	40	53	35	13	13	13	40	53	34
Penicillium/Aspergillus types	1,100	53	110	270	670	1,100	88	53	100	210	590	1,000	84
Stachybotrys	13	7	13	13	27	60	5	7	13	13	33	67	4
Torula	-	8	13	13	40	67	14	8	13	13	40	67	12
Seldom found growing indoors**													
Ascospores	-	13	33	80	210	320	67	25	53	110	360	690	71
Basidiospores	-	40	53	160	370	630	92	53	80	260	990	2,300	93
Rusts	13	13	13	13	40	67	25	13	13	13	53	80	26
Smuts, Periconia, Myxomycetes	410	13	13	40	93	160	70	13	13	40	110	210	68
§ TOTAL SPORES/m3	2,200												

†The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

 $\ddagger$ n = number of samples used to calculate data.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, EMLab P&K may not have received and tested a representative number of samples for every region or time period. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

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<sup>\*</sup> The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

<sup>\*\*</sup> These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-25-2014 Date of Receipt: 08-25-2014 Date of Report: 08-26-2014

#### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

Outdoor Summary: 21408001-1 TM14 OUT:

Species detected	Outdoor sample spores/m3				Typical outdoor ranges	Freq.
	<100	1K	10K	>100K	(North America)	%
Alternaria				13	7 - 33 - 600	45
Ascospores				< 13	13 - 210 - 5,900	76
Basidiospores				< 13	19 - 450 - 24,000	92
Chaetomium				40	7 - 13 - 160	9
Cladosporium				640	27 - 460 - 10,000	90
Penicillium/Aspergillus types				1,100	] 13 - 170 - 2,700	68
Rusts				13	7 - 20 - 360	20
Smuts, Periconia, Myxomycetes				410	7 - 53 - 920	63
Stachybotrys				13	7 - 13 - 570	2
Total				2,200		

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurrence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

#### **Indoor Samples**

**Location:** 21408001-1 TM15

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)			
Result: < 1%	dF: 4 Result: 2.5000 Critical value: 9.4877 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low			
Species 1	Detected	Spores/m3					
		<100 1K	10K	>100K			
	None Detected			< 13			

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: 2%	dF: 4 Result: 2.5000 Critical value: 9.4877 Inside Similar: Yes	Result: 0.2222	dF: 8 Result: 0.2083 Critical value: 0.6190 Outside Similar: No	Score: 105 Result: Low		
Species 1	Detected	Spores/m3				
		<100 1K	10K	>100K		
	Cladosporium			53		
	Other brown			13		
	Total			67		

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-25-2014 Date of Receipt: 08-25-2014 Date of Report: 08-26-2014

## MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

**Location:** 21408001-1 TM17

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: < 1%	dF: 4 Result: 2.5000 Critical value: 9.4877 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low		
Species 1	Detected	Spores/m3				
		<100 1K	10K	>100K		
	None Detected			< 13		

**Location:** 21408001-1 TM18

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)					
Result: 2%	dF: 4 Result: 2.5000 Critical value: 9.4877 Inside Similar: Yes	Result: 0.2500	dF: 7 Result: 0.5982 Critical value: 0.6786 Outside Similar: No	Score: 102 Result: Low					
Species	Detected		Spores/m3						
		<100 1K	10 <b>K</b>	>100K					
	Cladosporium			53					
	Total			53					

**Location:** 21408001-1 TM19

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ra (indoor/outo		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)				
Result: 1%	dF: 4 Result: 2.5000 Critical value: 9.4877 Inside Similar: Yes	Result: 0.44	44	dF: 7 Result: 0.0982 Critical value: 0.6786 Outside Similar: No	Score: 107 Result: Low				
Species	Detected			Spores/m3					
		<100	1K	10K	>100K				
	Alternaria				13				
Smuts, F	Periconia, Myxomycetes				13				
	Total				27				

<sup>\*</sup> The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

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Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-25-2014 Date of Receipt: 08-25-2014 Date of Report: 08-26-2014

### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

\*\* An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

\*\*\* The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

\*\*\*\* MoldSCORE<sup>TM</sup> is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source. EMLab P&Kreserves the right to, and may at anytime, modify or change the MoldScore algorithm without notice.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

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Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-25-2014 Date of Receipt: 08-25-2014 Date of Report: 08-26-2014

**MoldSCORE**<sup>TM</sup>: **Spore Trap Report Outdoor Sample:** 21408001-1 TM14 OUT

Fungi Identified	Oı	utd	00	r sa	mp	le	spo	res	s/r	n3	Raw	Spores/
_	<10	00		1K	_		10K		>1	00K	count	m3
Generally able to grow indoors*												
Alternaria						Ш					1	13
Bipolaris/Drechslera group											ND	< 13
Chaetomium						Ш					3	40
Cladosporium											12	640
Curvularia											ND	< 13
Nigrospora											ND	< 13
Penicillium/Aspergillus types†											20	1,100
Stachybotrys											1	13
Torula											ND	< 13
Seldom found growing indoors**												
Ascospores											ND	< 13
Basidiospores											ND	< 13
Rusts											1	13
Smuts, Periconia, Myxomycetes											31	410
Total												2,200

Fungi Identified	Ind	oor s	samj	ole	spor	es/n	<b>n3</b>	Raw	Spores/
	<100		1K		10K	>	100K	count	m3
Generally able to grow indoors*									
Alternaria								ND	< 13
Bipolaris/Drechslera group								ND	< 13
Chaetomium								ND	< 13
Cladosporium								ND	< 13
Curvularia								ND	< 13
Nigrospora								ND	< 13
Penicillium/Aspergillus types†								ND	< 13
Stachybotrys								ND	< 13
Torula								ND	< 13
Seldom found growing indoors**									
Ascospores								ND	< 13
Basidiospores								ND	< 13
Rusts								ND	< 13
Smuts, Periconia, Myxomycetes								ND	< 13
Total									N/A

MoldSCORE; 100 200 300 Score								
			100					
			100					
			100					
			100					
			100					
			100					
			100					
			100					
			100					
			100					
			100					
			100					
			100					
Final	Final MoldSCORE							

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-25-2014 Date of Receipt: 08-25-2014 Date of Report: 08-26-2014

# MoldSCORETM: Spore Trap Report

**Location:** 21408001-1 TM16

Fungi Identified	Inde	or	sam	ple	spore	es/m	13	Raw	Spores/
	<100		1K		10K	>1	00K	count	m3
Generally able to grow indoors*									
Alternaria								ND	< 13
Bipolaris/Drechslera group								ND	< 13
Chaetomium								ND	< 13
Cladosporium								1	53
Curvularia								ND	< 13
Nigrospora								ND	< 13
Other brown								1	13
Penicillium/Aspergillus types†								ND	< 13
Stachybotrys								ND	< 13
Torula								ND	< 13
Seldom found growing indoors**									
Ascospores								ND	< 13
Basidiospores								ND	< 13
Rusts								ND	< 13
Smuts, Periconia, Myxomycetes								ND	< 13
Total									67

MoldSCORE; Score									
	100								
	100								
	100								
	102								
	100								
	100								
	105								
	100								
	100								
	100								
	100								
	100								
	100								
	100								
Final MoldSCORE	105								

Fungi Identified	Inc	Indoor sample spores/m									Raw	Spores/
	<100		1	K			10K		>100	)K	count	m3
Generally able to grow indoors*												
Alternaria											ND	< 13
Bipolaris/Drechslera group											ND	< 13
Chaetomium											ND	< 13
Cladosporium											ND	< 13
Curvularia											ND	< 13
Nigrospora											ND	< 13
Penicillium/Aspergillus types†											ND	< 13
Stachybotrys											ND	< 13
Torula											ND	< 13
Seldom found growing indoors**												
Ascospores											ND	< 13
Basidiospores											ND	< 13
Rusts											ND	< 13
Smuts, Periconia, Myxomycetes											ND	< 13
Total												N/A

	MoldSCORE;									
100	200	300	Score							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
Final	100									

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-25-2014 Date of Receipt: 08-25-2014 Date of Report: 08-26-2014

MoldSCORETM: Spore Trap Report

**Location:** 21408001-1 TM18

Fungi Identified	Ind	00	rs	sam	ple	S	pore	s/r	n3	}	Raw	Spores/
_	<100			1K			10K	>	100	K	count	m3
Generally able to grow indoors*												
Alternaria											ND	< 13
Bipolaris/Drechslera group											ND	< 13
Chaetomium											ND	< 13
Cladosporium											1	53
Curvularia											ND	< 13
Nigrospora											ND	< 13
Penicillium/Aspergillus types†											ND	< 13
Stachybotrys											ND	< 13
Torula											ND	< 13
Seldom found growing indoors**												
Ascospores											ND	< 13
Basidiospores											ND	< 13
Rusts											ND	< 13
Smuts, Periconia, Myxomycetes											ND	< 13
Total												53

MoldSCO 200	<b>RE</b> : 300	
		100
		100
		100
		102
		100
		100
		100
		100
		100
		100
		100
		100
		100
Final MoldSCO	102	

Fungi Identified	Inc	doo	rs	sam	ple	S	ore	es/ı	m3	Raw	Spores/
	<100			1K			10K	>	>100F	count	m3
Generally able to grow indoors*											
Alternaria		Ш								1	13
Bipolaris/Drechslera group		Ш	Ш							ND	< 13
Chaetomium		Ш	Ш							ND	< 13
Cladosporium		Ш								ND	< 13
Curvularia										ND	< 13
Nigrospora		Ш	Ш							ND	< 13
Penicillium/Aspergillus types†		Ш								ND	< 13
Stachybotrys										ND	< 13
Torula										ND	< 13
Seldom found growing indoors**											
Ascospores										ND	< 13
Basidiospores										ND	< 13
Rusts		Ш								ND	< 13
Smuts, Periconia, Myxomycetes		Ш								1	13
Total											27

1	MoldSCORE: 200 300																
																	105
																	100
																	100
																	100
																	100
																	100
																	100
																	100
																	100
																	100
																	100
																	100
							Г					Г					102
Г	Final MoldSCORE									107							

Client: Hygiene Technologies International, Inc. Date of Sampling: 08-25-2014 Date of Receipt: 08-25-2014 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu Date of Report: 08-26-2014

Re: 21408001-1

# MoldSCORETM: Spore Trap Report

\* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. Cladosporium is one of the predominant spore types worldwide and is frequently present in high numbers. Penicillium/Aspergillus species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of

a single morphological type of basidiospore on an inside sample should be considered significant.

†The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods.

‡Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.

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Report for:

Mr. Kenny Hsi, Mr. Lakhpreet Sandhu Hygiene Technologies International, Inc. 3625 Del Amo Boulevard, Suite 180 Torrance, CA 90503-8370

Regarding: Project: 21408001-1

EMĹ ID: 1254802

Approved by:

0

Technical Manager Melissa Tracey Dates of Analysis:

Spore trap analysis: 09-03-2014

Service SOPs: Spore trap analysis (1038) AIHA-LAP, LLC accredited service, Lab ID #179768

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-29-2014 Date of Receipt: 09-02-2014 Date of Report: 09-03-2014

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:		8001-1 20OUT	2140800	01-1 TM21	2140800	)1-1 TM22	2140800	01-1 TM23
Comments (see below)	N	lone	N	Vone	N	Vone	N	Vone
Lab ID-Version‡:	570	8971-1	570	8972-1	570	8973-1	570	8974-1
Analysis Date:	09/0	3/2014	09/0	03/2014	09/0	3/2014	09/03/2014	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria	6	80	4	53		_	3	40
Ascospores	4	210						
Basidiospores	10	530						
Chaetomium	1	13	4	53				
Cladosporium	71	3,800	5	270	3	160	5	270
Curvularia	1	13						
Epicoccum								
Myrothecium								
Nigrospora								
Other brown	1	13			1	13	1	13
Other colorless								
Penicillium/Aspergillus types†	7	370						
Pithomyces	2	27						
Rusts								
Smuts, Periconia, Myxomycetes					1	13		
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Background debris (1-4+)††	3+		2+		2+		2+	
Hyphal fragments/m3	67		< 13		< 13		< 13	
Pollen/m3	230		< 13		< 13		27	
Skin cells (1-4+)	1+		1+		1+		1+	
Sample volume (liters)	75		75		75		75	
§ TOTAL SPORES/m3		5,100		370		190		320

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

EMLab P&K, LLC

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<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu Re: 21408001-1

Date of Sampling: 08-29-2014 Date of Receipt: 09-02-2014 Date of Report: 09-03-2014

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	214080	01-1 TM24	2140800	01-1 TM25	214080	01-1 TM26
Comments (see below)	ľ	None	N	None	N	None
Lab ID-Version‡:	570	8975-1	570	8976-1	570	9015-1
Analysis Date:	09/0	03/2014	09/0	03/2014	09/0	03/2014
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria		_	2	27	3	40
Ascospores					2	110
Basidiospores			1	53	1	53
Chaetomium						
Cladosporium					4	210
Curvularia					1	13
Epicoccum					1	13
Fusarium						
Myrothecium						
Nigrospora						
Other brown					1	13
Other colorless						
Penicillium/Aspergillus types†						
Pithomyces						
Rusts					1	13
Smuts, Periconia, Myxomycetes					2	27
Stachybotrys						
Stemphylium						
Torula					1	13
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+		2+		2+	
Hyphal fragments/m3	< 13		< 13		13	
Pollen/m3	< 13		13		13	
Skin cells (1-4+)	< 1+		1+		1+	
Sample volume (liters)	75		75		75	
§ TOTAL SPORES/m3		< 13		80		510

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

EMLab P&K, LLC

EMLab ID: 1254802, Page 3 of 3

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-29-2014 Date of Receipt: 09-02-2014 Date of Report: 09-03-2014

# MoldRANGE<sup>TM</sup>: Extended Outdoor Comparison Outdoor Location: 21408001-1 TM20OUT

Fungi Identified	Outdoor		Typica	l Outo	loor Da	ata for	:	1	Typica	l Outo	loor Da	ata for	:
	data	Au	gust in	Califo	rnia† (r	n‡=179	975)	The er	ntire yea	ar in Ca	lifornia	(n‡=20	00698)
	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	80	13	13	27	53	93	59	13	13	27	67	110	53
Bipolaris/Drechslera group	-	9	13	13	27	50	16	7	13	13	27	40	12
Chaetomium	13	10	13	13	27	53	24	8	13	13	27	47	19
Cladosporium	3,800	160	270	690	1,600	2,500	99	110	210	610	1,600	2,800	97
Curvularia	13	8	13	13	27	53	12	7	13	13	27	53	6
Epicoccum	-	8	13	13	27	53	22	8	13	13	33	53	19
Nigrospora	-	7	13	13	27	53	12	7	13	13	27	53	8
Other brown	13	13	13	13	40	53	35	13	13	13	40	53	34
Penicillium/Aspergillus types	370	53	110	270	670	1,100	88	53	100	210	590	1,000	84
Pithomyces	27	7	13	13	27	53	6	7	13	13	27	53	4
Stachybotrys	-	7	13	13	27	60	5	7	13	13	33	67	4
Torula	-	8	13	13	40	67	14	8	13	13	40	67	12
Seldom found growing indoors**													
Ascospores	210	13	33	80	210	320	67	25	53	110	360	690	71
Basidiospores	530	40	53	160	370	630	92	53	80	260	990	2,300	93
Rusts	-	13	13	13	40	67	25	13	13	13	53	80	26
Smuts, Periconia, Myxomycetes	-	13	13	40	93	160	70	13	13	40	110	210	68
§ TOTAL SPORES/m3	5,100												

<sup>†</sup>The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, EMLab P&K may not have received and tested a representative number of samples for every region or time period. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

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<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

<sup>\*</sup> The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

<sup>\*\*</sup> These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

 $<sup>\</sup>ddagger$ n = number of samples used to calculate data.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-29-2014 Date of Receipt: 09-02-2014 Date of Report: 09-03-2014

## MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

Outdoor Summary: 21408001-1 TM20OUT:

Species detected		Outdoor	sample s	pores/m3		Typical	outdo	or ranges	Freq.
	<100					(Nor	th An	nerica)	<b>%</b>
Alternaria				80	0	7 -	33	- 600	45
Ascospores				21	0	13 -	210	- 5,900	76
Basidiospores				53	80	19 -	450	- 24,000	92
Chaetomium				13	3	7 -	13	- 160	9
Cladosporium				3,80	00	27 -	460	- 10,000	90
Curvularia				13	3	7 -	27	- 590	17
Other brown				13	3	7 -	13	- 130	23
Penicillium/Aspergillus types				37	70	13 -	170	- 2,700	68
Pithomyces				27	7	7 -	20	- 590	15
Smuts, Periconia, Myxomycetes				< 1	13	7 -	53	- 920	63
Total				5,10	00				

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurrence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

#### **Indoor Samples**

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreemen (indoor/o		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: 7%	dF: 5 Result: 14.0260 Critical value: 11.0705 Inside Similar: No	Result: (	0.5000	dF: 9 Result: 0.3333 Critical value: 0.5833 Outside Similar: No	Score: 179 Result: Medium		
Species	Detected			Spores/m3			
		<100	1K	10K	>100K		
	Alternaria				53		
	Chaetomium				53		
	Cladosporium				270		
	Total				370		

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-29-2014 Date of Receipt: 09-02-2014 Date of Report: 09-03-2014

# MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

**Location:** 21408001-1 TM22

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: 3%	dF: 5 Result: 14.0260 Critical value: 11.0705 Inside Similar: No	Result: 0.3333	dF: 10 Result: 0.1303 Critical value: 0.5515 Outside Similar: No	Score: 108 Result: Low		
Species 1	Detected		Spores/m3			
		<100 1K	10K	>100K		
	Cladosporium			160		
	Other brown			13		
Smuts, Periconia, Myxomycetes				13		
	Total			190		

**Location:** 21408001-1 TM23

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: 6%	dF: 5 Result: 14.0260 Critical value: 11.0705 Inside Similar: No	Result: 0.5000	dF: 9 Result: 0.3542 Critical value: 0.5833 Outside Similar: No	Score: 118 Result: Low		
Species 1	Detected		Spores/m3			
		<100 1K	10K	>100K		
	Alternaria			40		
	Cladosporium			270		
	Other brown			13		
	Total			320		

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: < 1%	dF: 5 Result: 14.0260 Critical value: 11.0705 Inside Similar: No	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low
Species 1	Detected		Spores/m3	
		<100 1K	10K	>100K
	None Detected			< 13

Date of Sampling: 08-29-2014

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Date of Receipt: 09-02-2014 Re: 21408001-1 Date of Report: 09-03-2014

### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

**Location:** 21408001-1 TM25

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)		ment ratio** or/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 1%	dF: 5 Result: 14.0260 Critical value: 11.0705 Inside Similar: No	Re	sult: 0.3636	dF: 9 Result: 0.5000 Critical value: 0.5833 Outside Similar: No	Score: 110 Result: Low
Species	Detected			Spores/m3	
		<100	1K	10K	>100K
	Alternaria				27
	Basidiospores				53
	Total				80

**Location:** 21408001-1 TM26

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: 9%  dF: 5  Result: 14.0260  Critical value: 11.0705  Inside Similar: No		Result: 0.6316	dF: 13 Result: 0.4011 Critical value: 0.4780 Outside Similar: No	Score: 135 Result: Low		
Species 1	Detected		Spores/m3			
		<100 1K	10K	>100K		
	Alternaria			40		
	Ascospores			110		
	Basidiospores			53		
	Cladosporium			210		
	Curvularia			13		
	Epicoccum			13		
	Other brown			13		
	Rusts			13		
Smuts, P	ericonia, Myxomycetes			27		
	Torula			13		
	Total			510		

<sup>\*</sup> The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

EMLab P&K, LLC EMLab ID: 1254802, Page 3 of 4

<sup>\*\*</sup> An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-29-2014 Date of Receipt: 09-02-2014 Date of Report: 09-03-2014

### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

\*\*\* The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

\*\*\*\* MoldSCORE<sup>TM</sup> is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source. EMLab P&Kreserves the right to, and may at anytime, modify or change the MoldScore algorithm without notice.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

EMLab P&K, LLC EMLab ID: 1254802, Page 4 of 4

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

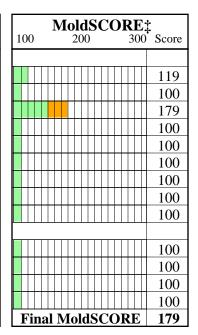
Re: 21408001-1

Date of Sampling: 08-29-2014 Date of Receipt: 09-02-2014 Date of Report: 09-03-2014

**MoldSCORE**<sup>TM</sup>: **Spore Trap Report Outdoor Sample:** 21408001-1 TM20OUT

Fungi Identified	Ou	td	00	r s	am	ple	9 8	spo	res	/n	n3	Raw	Spores/
_	<100	)		11	ζ.	_		10K		>10	00K	count	m3
Generally able to grow indoors*													
Alternaria												6	80
Bipolaris/Drechslera group												ND	< 13
Chaetomium												1	13
Cladosporium												71	3,800
Curvularia												1	13
Nigrospora												ND	< 13
Other brown												1	13
Penicillium/Aspergillus types†												7	370
Pithomyces												2	27
Stachybotrys												ND	< 13
Torula												ND	< 13
Seldom found growing indoors**													
Ascospores												4	210
Basidiospores												10	530
Rusts												ND	< 13
Smuts, Periconia, Myxomycetes												ND	< 13
Total													5,053

Fungi Identified	In	do	or	sam	ple	e s	spoi	res	/m	3	Raw	Spores/
	<10	0		1K			10K		>1	00K	count	m3
Generally able to grow indoors*												
Alternaria											4	53
Bipolaris/Drechslera group											ND	< 13
Chaetomium											4	53
Cladosporium											5	270
Curvularia											ND	< 13
Nigrospora											ND	< 13
Penicillium/Aspergillus types†											ND	< 13
Stachybotrys											ND	< 13
Torula											ND	< 13
Seldom found growing indoors**												
Ascospores											ND	< 13
Basidiospores											ND	< 13
Rusts											ND	< 13
Smuts, Periconia, Myxomycetes											ND	< 13
Total												373



Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-29-2014 Date of Receipt: 09-02-2014 Date of Report: 09-03-2014

# MoldSCORE<sup>TM</sup>: Spore Trap Report

**Location:** 21408001-1 TM22

Fungi Identified	In	doc	r s	amj	ole	sp	ore	s/n	13	Raw	Spores/
_	<100	)	1	K		10	ΙK	>1	100K	count	m3
Generally able to grow indoors*											
Alternaria										ND	< 13
Bipolaris/Drechslera group										ND	< 13
Chaetomium										ND	< 13
Cladosporium										3	160
Curvularia										ND	< 13
Nigrospora										ND	< 13
Other brown										1	13
Penicillium/Aspergillus types†										ND	< 13
Stachybotrys										ND	< 13
Torula										ND	< 13
Seldom found growing indoors**											
Ascospores										ND	< 13
Basidiospores										ND	< 13
Rusts										ND	< 13
Smuts, Periconia, Myxomycetes										1	13
Total											187

100	MoldSC 200	ORE:	Score
			100
			100
			100
			101
			100
			100
			105
			100
			100
			100
			100
			100
			100
			103
Fina	al MoldSC	ORE	108

Fungi Identified	In	do	or	sam	ple	e s	por	es/	m.	3	Raw	Spores/
	<100	)		1K			10K		>10	0K	count	m3
Generally able to grow indoors*												
Alternaria											3	40
Bipolaris/Drechslera group											ND	< 13
Chaetomium											ND	< 13
Cladosporium											5	270
Curvularia											ND	< 13
Nigrospora											ND	< 13
Other brown											1	13
Penicillium/Aspergillus types†											ND	< 13
Stachybotrys											ND	< 13
Torula											ND	< 13
Seldom found growing indoors**												
Ascospores											ND	< 13
Basidiospores											ND	< 13
Rusts											ND	< 13
Smuts, Periconia, Myxomycetes											ND	< 13
Total												320

100	MoldSC		
100	200	300	Score
			114
			100
			100
			102
			100
			100
			105
			100
			100
			100
			100
			100
			100
			100
Fin	al MoldSC	ORE	118

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-29-2014 Date of Receipt: 09-02-2014 Date of Report: 09-03-2014

# MoldSCORE<sup>TM</sup>: Spore Trap Report

**Location:** 21408001-1 TM24

Fungi Identified	Indo	or san	nple	spore	s/m3	Raw	Spores/
	<100	1K		10K	>100	K count	m3
Generally able to grow indoors*							
Alternaria						ND	< 13
Bipolaris/Drechslera group						ND	< 13
Chaetomium						ND	< 13
Cladosporium						ND	< 13
Curvularia						ND	< 13
Nigrospora						ND	< 13
Penicillium/Aspergillus types†						ND	< 13
Stachybotrys						ND	< 13
Torula						ND	< 13
Seldom found growing indoors**							
Ascospores						ND	< 13
Basidiospores						ND	< 13
Rusts						ND	< 13
Smuts, Periconia, Myxomycetes						ND	< 13
Total							N/A

100	Score		
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
Fina	al MoldSCO	ORE	100

Fungi Identified	In	do	or	sa	mp	le	sį	or	es/	m3	3	Raw	Spores/
	<100	)		1K				10K		>100	)K	count	m3
Generally able to grow indoors*													
Alternaria			Ш									2	27
Bipolaris/Drechslera group												ND	< 13
Chaetomium												ND	< 13
Cladosporium												ND	< 13
Curvularia												ND	< 13
Nigrospora												ND	< 13
Penicillium/Aspergillus types†												ND	< 13
Stachybotrys												ND	< 13
Torula												ND	< 13
Seldom found growing indoors**													
Ascospores												ND	< 13
Basidiospores												1	53
Rusts	$\Box$											ND	< 13
Smuts, Periconia, Myxomycetes												ND	< 13
Total													80

100	MoldSCORE 100 200 300							
100	00 200 300							
			110					
			100					
			100					
			100					
			100					
			100					
			100					
			100					
			100					
			100					
			105					
			100					
			100					
Fina	al MoldSC	ORE	110					

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21408001-1

Date of Sampling: 08-29-2014 Date of Receipt: 09-02-2014 Date of Report: 09-03-2014

# MoldSCORE<sup>TM</sup>: Spore Trap Report

**Location:** 21408001-1 TM26

Fungi Identified	Inde	or sam	ple spore	es/m3	Raw	Spores/
	<100	1K	10K	>100K	count	m3
Generally able to grow indoors*						
Alternaria					3	40
Bipolaris/Drechslera group					ND	< 13
Chaetomium					ND	< 13
Cladosporium					4	210
Curvularia					1	13
Epicoccum					1	13
Nigrospora					ND	< 13
Other brown					1	13
Penicillium/Aspergillus types†					ND	< 13
Stachybotrys					ND	< 13
Torula					1	13
Seldom found growing indoors**						
Ascospores					2	110
Basidiospores					1	53
Rusts					1	13
Smuts, Periconia, Myxomycetes					2	27
Total						507

100	MoldSC 200		Score
			113
			100
			100
			100
			105
			105
			100
			105
			100
			100
			105
			135
			100
			105
			105
Final	MoldSC	ORE	135

<sup>\*</sup> The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

\*\* These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens.

EMLab P&K, LLC EMLab ID: 1254802, Page 4 of 4

<sup>\*\*</sup> These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

<sup>†</sup>The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods.

<sup>‡</sup>Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.



Hygiene Technologies International, Inc.

001242895

Sulte 180 503-1643 7310) 370-8370 (310) 370-2474 FAX

Request For Analysis www.hygienetech.com

Project Number/Purcha	se-Order:	214080	00 - Dat	e Submitted: _	8 5 14	
Project Contact:	Lisandl	W/Khs	Turnaround Req	uired: STA	MARD	
Project Contact: L. Sandhu K. L. Turnaround Required: STANDARD  Lab Destination: EMLAB SK Lab Contact: SAMPLE RECETANT						
SAMPLE ID	VOLUME	MEDIA		SIS REQUEST		
21408001-1 Tholon	75L	Airo-Cell	SporeTrap			
21408001-1TM02	75L	Airo-Cell				
21408001-1 TMO3	<u>75L</u>	Arro-(e)				
2140800 - 17404	75L	ATT-O-Cell				
21408001-1 TKO5	<u>75l_</u>	Alxo-Cell				
21408001-1-TM06	75L_	Airo-cell				
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Special Instructions:	Kand	om San	mling CRO	und-1	)	
			<u> </u>			
<ol> <li>Sampled by:</li></ol>	indhy on	08 4/14	Received by:	11 00	~ 0870x714 1725	
2. Relinquished by:	Handlin C	12 08 5/140	Received by:			
3. Relinquished by:		•••	Received by:			
	•••	Please include signat	urc, date, and time			
Lab Use Only:						
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no1249822

(310) 370-8370 (310) 370-8370 (310) 370-2474 FAX www.hygionetech.com

# Request For Analysis

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Project Number/Purche	08/20/14					
Project Contact:	·Sandhi	(K.hsi	Turnaround Re			
Lab Destination: EMLAB P&K.			Sample B			
SAMPLE ID	VOLUME	MEDIA	ANALY			
21408001-1 TANDAN	75L	Arx-o-cell			(Total Fungi)	
21408001-17M08	75L	Aix-o-cell		, ,,,	1	
21408001- TMO9	75L_	Air-o-cell			7	
21408001-17M10	75 L	Airo-cell				
21408001-1TM11	75L	Aix-O-Cell				
21408001-1TE412	75L	Aco-cell				
21408001-TM13	75 L	Aix-o-Cell				
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Special instructions: _	<u> Kenza</u>	Jan Sun	1pting (Rau	3d-2	ļ	
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1. Sampled by:	milly on	08/19/4	Keceived by:	he wo	1255 0720/14	
	Bandhy o	~ 08/20/14@	Received by:		ļ	
3. Relinquished by: _		Please include signat	Received by:	<del></del>	<u>  </u>	
Lab Use Only:	·-·	Tours Broken Signa	nes, care, and little		<del></del>	
Zao Car Omy						
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Hygiene Technologies International, Inc.



001251553

# Request For Analysis www.hygieretech.com

Project Number/Parelines Order: 2-140800   Date Submitted: 8/25/14					
Project Contact:	- Sandhu	IK hsi	red: Norman		
Lab Destination:	EMLAR			mple Receiving	
SAMPLE ID	VOLUME	MEDIA	•	REQUESTED	
21408001-17M14006	75L	Aix-o-Cell		malysis (Total Fungi)	
2 408001-1+M15	75L	AUS-O-CEN	, i		
21408001-17M16	756	Aix-o-cell			
2140806-1 TM17	756	Aiso-Cell			
21408001-1-TM18	<u> 15U</u>	Ais-o-Cell			
21468001-1 TM19	75L	Aix-o-cell			
			7.	· · · · · · · · · · · · · · · · · · ·	
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Special Instructions:	lan	dom Sa	mpling (Ro	vm 2-3)	
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1. Sampled by:	and maken	118 to 61 11 60	UK 50 V	# )868140	
2. Relinquished by:		08 15/14@	Received by:	1230	
	BENNYAMA UV		;	1250	
3. Relinquished by:	<u> </u>	Please include signat	Received by:		
Lab Use Only:	-"	Paris			
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Hygiene Technologies International, Inc.

— — — — — — — — dd, Sulte 180 Torrence, California 90503-1643 (310) 370-8370

(310) 370-2474 FAX www.hygienetech.com

Request For Analysis

T										
Project Number/Pr	rchase Order: 21408001-1			Date Submitted: 08/29/14						
Project Contact:	ct Contact: L. Sandhu / K. Lsi			Turnaround Required: Normal						
Lab Destination: 5 M LAB PSIC			Lab Contact: Szample Receiving							
SAMPLE ID	VOLU	VOLUME MEDIA			ANALYSIS REQUESTED					
21408001-17m	2000 95	- Airo-cell				Amalysis		Fungi)		
21408001-1 T	121 75	- ·			1	i i	18	1		
21408001-1 Th	122 75	· ·								
2140500r1 Th	23 75									
21408001-17	7-5	L Air-o-cell								
21408001-1 TM	25 75	L Arro-cen								
21408001-1 113	26 751	- ATTO-Cell						¥		
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GD 27 17 1	7									
Special Instruction	řs:	emdom Sa	444	Dling	<u>[2</u>	om 2-4	.}			
		:								
1. Sampled by:	Fanolhy.	on 8/29/14@15 u on 8/29/14@	Rec	ived by:	1/4	(Z.F.)	9/2/140	20815		
2. Relinquished b	y: # and	u on 8/29/140	Rece	ived by:	D () "0		, , , , , , , , , , , , , , , , , , , ,			
3. Relinquished b			Rece	ived by:						
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